

Product datasheet for **RG202470**

Optineurin (OPTN) (NM_001008211) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Optineurin (OPTN) (NM_001008211) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Optineurin
Synonyms:	ALS12; FIP2; GLC1E; HIP7; HYPL; NRP; TFIIIA-INTP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG202470 representing NM_001008211
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCCCATCAACCTCTCAGCTGCCTCACTGAAAAGGAGGACAGCCCCAGTGAAAGCACAGGAAATGGAC
 CCCCCACCTGGCCACCCAAACCTGGACACGTTTACCCGGAGGAGCTGCTGCAGCAGATGAAAGAGCT
 CCTGACCGAGAACCACCGCTGAAAAGAAGCCATGAAGCTAAATAATCAAGCCATGAAAGGGAGATTTGAG
 GAGCTTTCGCCTGGACAGAGAAAACAGAAGGAAGAAGCCAGTTTTTTGAGATACAGAGCAAAGAAGCAA
 AAGAGCGTCTAATGGCCTTGAGTCATGAGAATGAGAAATTGAAGGAAGAGCTTGGAAAATAAAAGGGAA
 ATCAGAAAAGTCACTGAGGACCCCACTGATGACTCCAGGCTTCCAGGGCCGAGCGGAGCAGGAAAAG
 GACCAGCTCAGGACCCAGGTGGTGGGCTACAAGCAGAGAAGGCAGACCTGTTGGGCATCGTGTCTGAAC
 TGCAGCTCAAGCTGAACTCCAGCGGCTCCTCAGAAGATTCCTTTGTTGAAATTAGGATGGCTGAAGGAGA
 AGCAGAAGGGTCAGTAAAAGAAATCAAGCATAGTCTGGGCCACGAGAACAGTCTCCACTGGCACGGCA
 TTGTCTAAATATAGGAGCAGATCTGCAGATGGGGCCAAGAATTACTTCGAACATGAGGAGTTAACTGTGA
 GCCAGCTCCTGTGTGCCTAAGGGAAGGGAATCAGAAGGTGGAGAGACTTGAAGTTGCACTCAAGGAGGC
 CAAAGAAAGAGTTTCAAGATTTTAAAAAGAAAACAAGTAATCGTTCTGAGATTGAAACCCAGACAGAGGGG
 AGCACAGAGAAAAGAGAATGATGAAGAGAAAAGGCCCGGAGACTGTTGGAAGCGAAGTGAAGCACTGAACC
 TCCAGGTGACATCTCTGTTTAAAGGAGCTCAAGAGGCTCATAAAAACTCAGCGAAGCTGAGCTAATGAA
 GAAGAGACTTCAAGAAAAGTGTCAAGGCCCTTGAAGGAAAAATTCGCAATTCATCAGAGTTGAATGAA
 AAGCAAGAGCTTGTATATACTAACAAAAAGTTAGAGCTACAAGTGAAAGCATGCTATCAGAAATCAAAA
 TGAACAGGCTAAAACAGAGGATGAAAAGTCCAATTAAGTGTGCTACAGATGACACACAACAAGCTTCT
 TCAAGAACATAATAATGCATTGAAAACAATTGAGGAACTAACAGAAAAGAGTCAGAAAAAGTGGACAGG
 GCAGTGTGAAGGAACTGAGTAAAAAACTGGAAGTGGCAGAGAAGGCTCTGGCTTCCAAACAGCTGCAAA
 TGGATGAAATGAAGCAAACCATGCAAGCAGGAAGAGGACCTGGAAACCATGACCATCCTCAGGGCTCA
 GATGGAAGTTTACTGTTCTGATTTTCTGCTGAAAGAGCAGCGAGAGAGAAAATTCATGAGGAAAAGGAG
 CAACTGGCATTGCAGCTGGCAGTTCTGCTGAAAGAGAATGATGCTTTCGAAGACGGAGGCAGGCAGTCT
 TGATGGAGATGCAGATCGTATGGGGCAGACAAGTACTCTGACCAGCAGGCTTACCTTGTTCAAAG
 AGGAGCTGAGGACAGGACTGGCGCAACAGCGGAATATTCGATTCTTCTGCCCAAGTGTGGAGAG
 GTTCTGCCTGACATAGACAGTTACAGATTCACGTGATGGATTGCATCATT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG202470 representing NM_001008211
 Red=Cloning site Green=Tags(s)

MSHQPLSCLTEKEDSPSESTGNPPHLAHPNLDFTPEELLQQMKELLTENHQLKEAMKLNQAMKGRFE
 EL SAWTEKQKEERQFFEIQSKEAKERLMALSHENEKLKEELGKLGKSERSSDPTDDSRLPRAEAEQEK
 DQLRTQVVRQLAEKADLLGIVSELQLKLNSSGSEDSFVEIRMAEGEAEGSVKEIKHSPGPTRTVSTGTA
 LSKYRSRSDGAKNYFEHEELTVSQQLLCLREGNQKVERLEVALKEAKERVSDFEKTSNRSEIETQTEG
 STEKENDEEKGPETVGSEVEALNLQVTSLFKELQEHTKLSEAEMLMKRLQEKQALERKNSAIPSELNE
 KQELVYTNKKLELQVESMLSEIKMEQAKTEDEKSKLTVLQMTHNKLLQEHNNALKTIEELTRKESEKVD
 AVLKELSEKLELAEKALASKQLQMDQEMKQTIKQEEEDLEMTILRAQMEVYCSDFHAERAAREKIHEEKE
 QLALQLAVLLKENDAFEDGGRQSLMEMQSRHGARTSDSDQAYLVQRGAEDRDWRQQRNIPIHSCPCKGE
 VLPDIDTLQIHVMDCII

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001008211

ORF Size: 1731 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001008211.1](#), [NP_001008212.1](#)

RefSeq Size: 3597 bp

RefSeq ORF: 1734 bp

Locus ID: 10133

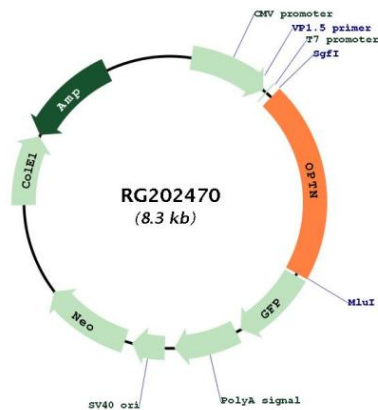
UniProt ID: [Q96CV9](#)

Cytogenetics: 10p13

Protein Families: Druggable Genome

Gene Summary: This gene encodes the coiled-coil containing protein optineurin. Optineurin may play a role in normal-tension glaucoma and adult-onset primary open angle glaucoma. Optineurin interacts with adenovirus E3-14.7K protein and may utilize tumor necrosis factor-alpha or Fas-ligand pathways to mediate apoptosis, inflammation or vasoconstriction. Optineurin may also function in cellular morphogenesis and membrane trafficking, vesicle trafficking, and transcription activation through its interactions with the RAB8, huntingtin, and transcription factor IIIA proteins. Alternative splicing results in multiple transcript variants encoding the same protein. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG202470